IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1, 3, 10, 15 and 19 in accordance with the following:

1. (Currently Amended) A servo motor control system in which a numerical control device and at least one servo amplifier are connected to each other with a serial bus to control a servo motor connected to the servo amplifier, wherein:

at least two types of data transfer systems are prepared for the serial bus, and

~~a data transfer system is selected by~~ a parameter which has been set in the numerical control device is the basis for an idle pattern transmitted to each servo amplifier in the servo motor control system and used in selecting a data transfer system.

2. (Original) The servo motor control system according to claim 1, wherein the servo amplifier discriminates and determines a data transfer system on the basis of a frequency of signal change for a predetermined time in a received signal on the serial bus so that the servo amplifier is adaptable to a plurality of data transfer systems.

3. (Currently Amended) ~~The servo motor control system according to claim 1,~~ ~~wherein~~ A servo motor control system in which a numerical control device and at least one servo amplifier are connected to each other with a serial bus to control a servo motor connected to the servo amplifier, wherein:

at least two types of data transfer systems are prepared for the serial bus,

a data transfer system is selected by a parameter which has been set in the numerical control device;

a plurality of servo motors are connected to the numerical control device with a serial bus by a daisy chain system,

each servo amplifier includes means for measuring a frequency of signal change for a predetermined time in a received signal on the serial bus and discriminating a data transfer system on the basis of the measured frequency of signal change, and

at least a servo amplifier except for a most downstream servo amplifier in the daisy chain

system includes first and second connectors for the serial bus, discriminates a data transfer system of the serial bus in the first connector on the basis of a signal received by the first connector and said discriminating means, and determines a data transfer system of the second connector on the basis of the discrimination result so that a servo amplifier connected to an upstream or a downstream in the daisy chain system is adaptable to a plurality of data transfer systems.

4. (Original) A servo motor control system in which a numerical control device and at least one servo amplifier are connected to each other with a serial bus to control servo motors connected to the servo amplifier, wherein

at least two types of data transfer systems are prepared for the serial bus, and

said numerical control device comprises:

means for changing the frequency of signal change for a predetermined time in the data on the serial bus on the basis of a data transfer system selected from the at least two data transfer systems;

means for monitoring data on the serial bus received from the servo amplifier connected to the serial bus to measure the frequency of signal changes for predetermined time, and deciding, on the basis of the measured frequency, whether the data transfer system of the servo amplifier is changed into the selected data transfer system or not; and

means for performing communication by the selected data transfer system when said deciding means decides that the data transfer system is changed, and changing the data transfer system again when said deciding means decides that the transfer system is not changed and then searching for a possible data transfer system.

5. (Original) The servo motor control system according to claim 4, wherein the servo amplifier discriminates a data transfer system on the basis of a frequency of signal changes for a predetermined time in a received signal on the serial bus, and transmits a signal having the same frequency of the signal change as that of the received signal when it is determined that the data transfer system is adaptable to the servo amplifier, so that the servo amplifier is adaptable to a plurality of data transfer systems.

6. (Original) The servo motor control system according to claim 5, wherein

a plurality of servo amplifiers are connected to the numerical control device with a serial

bus by a daisy chain system,

each servo amplifier includes means for measuring a frequency of signal change for a predetermined time in a received signal on the serial bus and discriminating a data transfer system on the basis of the measured frequency of signal change, and

at least a servo amplifier except for a most downstream servo amplifier in the daisy chain system includes first and second connectors for the serial bus, discriminates a data transfer system of the serial bus in the first connector on the basis of a signal received by the first connector and said discriminating means, and determines a data transfer system of the second connector on the basis of the discrimination result so that a servo amplifier connected to an upstream or a downstream in the daisy chain system is adaptable to a plurality of data transfer systems.

7. (Previously Presented) The servo motor control system according claim 1, wherein data is coded such that the frequency of signal changes per predetermined period of time set in discrimination of a transfer system is different from that in data transfer.

8. (Previously Presented) The servo motor control system according to claim 1, wherein the serial bus employs an optical communication system, the numerical control device and the servo amplifier have optical modules, respectively, and, when transfer bit rates of at least two types are used, the optical modules regulate emission intensities of light-emitting elements according to the transfer bit rates.

9. (Previously Presented) The servo motor control system according claim 2, wherein data is coded such that the frequency of signal changes per predetermined period of time set in discrimination of a transfer system is different from that in data transfer.

10. (Currently Amended) ~~The servo motor control system according claim 3, wherein~~ A servo motor control system in which a numerical control device and at least one servo amplifier are connected to each other with a serial bus to control a servo motor connected to the servo amplifier, wherein:

at least two types of data transfer systems are prepared for the serial bus,

a data transfer system is selected by a parameter which has been set in the numerical control device;

a plurality of servo motors are connected to the numerical control device with a serial bus

by a daisy chain system,

each servo amplifier includes means for measuring a frequency of signal change for a predetermined time in a received signal on the serial bus and discriminating a data transfer system on the basis of the measured frequency of signal change,

at least a servo amplifier except for a most downstream servo amplifier in the daisy chain system includes first and second connectors for the serial bus, discriminates a data transfer system of the serial bus in the first connector on the basis of a signal received by the first connector and said discriminating means, and determines a data transfer system of the second connector on the basis of the discrimination result so that a servo amplifier connected to an upstream or a downstream in the daisy chain system is adaptable to a plurality of data transfer systems, and

data is coded such that the frequency of signal changes per predetermined period of time set in discrimination of athe transfer system is different from that in data transfer.

11. (Previously Presented) The servo motor control system according claim 4, wherein data is coded such that the frequency of signal changes per predetermined period of time set in discrimination of a transfer system is different from that in data transfer.

12. (Previously Presented) The servo motor control system according claim 5, wherein data is coded such that the frequency of signal changes per predetermined period of time set in discrimination of a transfer system is different from that in data transfer.

13. (Previously Presented) The servo motor control system according claim 6, wherein data is coded such that the frequency of signal changes per predetermined period of time set in discrimination of a transfer system is different from that in data transfer.

14. (Previously Presented) The servo motor control system according to claim 2, wherein the serial bus employs an optical communication system, the numerical control device and the servo amplifier have optical modules, respectively, and, when transfer bit rates of at least two types are used, the optical modules regulate emission intensities of light-emitting elements according to the transfer bit rates.

15. (Currently Amended) ~~The servo motor control system according to claim 3, wherein~~ A servo motor control system in which a numerical control device and at least one servo

amplifier are connected to each other with a serial bus to control a servo motor connected to the servo amplifier, wherein:

at least two types of data transfer systems are prepared for the serial bus,

a data transfer system is selected by a parameter which has been set in the numerical control device;

a plurality of servo motors are connected to the numerical control device with a serial bus by a daisy chain system,

each servo amplifier includes means for measuring a frequency of signal change for a predetermined time in a received signal on the serial bus and discriminating a data transfer system on the basis of the measured frequency of signal change, and

at least a servo amplifier except for a most downstream servo amplifier in the daisy chain system includes first and second connectors for the serial bus, discriminates a data transfer system of the serial bus in the first connector on the basis of a signal received by the first connector and said discriminating means, and determines a data transfer system of the second connector on the basis of the discrimination result so that a servo amplifier connected to an upstream or a downstream in the daisy chain system is adaptable to a plurality of data transfer systems, and

the serial bus employs an optical communication system, the numerical control device and the servo amplifier have optical modules, respectively, and, when transfer bit rates of at least two types are used, the optical modules regulate emission intensities of light-emitting elements according to the transfer bit rates.

16. (Previously Presented) The servo motor control system according to claim 4, wherein the serial bus employs an optical communication system, the numerical control device and the servo amplifier have optical modules, respectively, and, when transfer bit rates of at least two types are used, the optical modules regulate emission intensities of light-emitting elements according to the transfer bit rates.

17. (Previously Presented) The servo motor control system according to claim 5, wherein the serial bus employs an optical communication system, the numerical control device and the servo amplifier have optical modules, respectively, and, when transfer bit rates of at least two types are used, the optical modules regulate emission intensities of light-emitting elements according to the transfer bit rates.

18. (Previously Presented) The servo motor control system according to claim 6, wherein the serial bus employs an optical communication system, the numerical control device and the servo amplifier have optical modules, respectively, and, when transfer bit rates of at least two types are used, the optical modules regulate emission intensities of light-emitting elements according to the transfer bit rates.

19. (Currently Amended) A method of controlling a servo motor, connected to a servo amplifier with a serial bus, by a numerical controller, comprising:

preparing at least two types of data transfer systems for the serial bus, and

selecting a data transfer system ~~by~~using a parameter set in the numerical control device which is the basis for an idle pattern transmitted to the servo amplifier and used in selecting the data transfer system.